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### Remarks/Arguments

#### I. Introduction

Applicant appreciates the Examiner's thorough review of the pending claims. Upon entry of the present amendment, claims 102-110, 116-130, 135, 138-139, 143, and new claim 182 will remain pending in this application. Claims 102, 108, and 110 have been amended to clarify certain aspects of the invention. Specifically, claim 102 has been amended to more fully describe the "variable angle chamfer." Support for this amendment appears in the specification at pages 9, 14, and Figure 2C. Applicants have added new claim 182, support for which appears in the specification at page 13. No new matter has been added.

Based on the following remarks, Applicant respectfully requests reconsideration of the Examiner's rejections and allowance of the pending claims.

#### II. 35 U.S.C. § 112

The Examiner has rejected claims 108-110 under 35 U.S.C. 112, second paragraph, as being indefinite. The Examiner's position is that it is indefinite (a) whether the Applicant is positively reciting the femoral components and (b) what the "desired limit range of motion" is. Applicant respectfully traverses this rejection and request reconsideration and withdrawal thereof in light of the below arguments.

With respect to the femoral component, Applicant is not intending to positively recite a femoral component in claims 108-110, but is referring to a femoral component in order to define how the component cooperates with the variable chamfer angle in order to define the impingement angles being claimed. Claim 110 has been amended to refer to "a femoral component" rather than "the femoral component" to clarify this point. Claim 143 does, however, positively recite a femoral component.

With respect to the "desired limit range of motion," Applicant has amended claim 108 to clarify that the impingement angles are disposed to permit an increased range of motion (as compared to a liner without a variable angle chamfer).

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### III. 35 USC § 102

#### A. Thornberry

Claims 102-110, 116, 135, 138-139 and 143 are rejected under 35 U.S.C. 102(b) as anticipated by Thornberry et al. The Examiner's position is that Thornberry et al. disclose a prosthetic device comprising an acetabular shell and an acetabular liner, with the rim of the liner comprising a variable angle chamfer ("wide chamfer") that is symmetric about a plane ("small chamfer"). Applicant respectfully traverses this rejection and request reconsideration and withdrawal thereof.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." See MPEP § 2131; *Verdegaal Bros. V. Union Oil Co. of Calif.*, 814 F.2d 628, 631 (Fed. Cir. 1987). However, Thornberry et al. does not disclose a variable angle chamfer having a plurality of optimized angles, as presently claimed. The "small chamfer" of Thornberry is shown and described as a "suboptimal elevated rim liner design" that "causes earlier impingement in most planes of motion." See page 4. The small chamfer does not provide a plurality of optimized angles, but instead, features a constant angle on its surface. The Examiner has stated that the three notches on the small chamfer are "angles that vary"; however, these notches appear to be for securing purposes and, in any event, are not "optimized angles that increase the range of motion" of a femoral component.

The wide chamfer on the accompanying Thornberry figure is described as being a part of an "elevated rim liner design that does not restrict motion to impingement in most places of motion." That liner, however, does not feature a variable angle chamfer. The figure is shown to illustrate the benefits of a wide chamfer portion on an elevated rim liner. The wide chamfer portion circled does not have "optimized angles" – it is shown as a constant smooth angle, not a variable angle chamfer with sloped surfaces that vary angularly from one another. This surface is just the "regular" rim of the cup before the anteversion was formed.

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There is also a portion of the Thornberry wide chamfer figure that appears to join the constant smooth angle surface to form an elevated area of the rim. That elevated area, however, is not a sloped surface. The liner is shown as an anteverted liner design that presents the opening of the inner concave surface at an angle relative to the cup opening. The point at which the constant smooth angle portion and the elevated area meet does not form "a plurality of angles forming a series of sloped surfaces that vary angularly from one another." There is just one point at which the two surfaces meet.

For example, the Examiner characterizes the Thornberry liner as having an angle that varies as the chamfer curves upward. However, the angle identified by the Examiner is not a variable angle chamfer. It is a smooth transitioning angle. The elevated rim is also a smooth surface without any angular changes. There is only one angle change where the wide chamfer meets the elevated rim, but this is not a variable angle chamfer that has a "plurality of optimized angles." The angle between the wide chamfer and the elevated rim is a single level change, not a variable angle, and it is not described or defined in any other way. Accordingly, because this reference does not anticipate or render obvious the claimed invention, Applicant respectfully requests that the Examiner reconsider and withdraw this rejection.

B. Smith & Nephew - Reflection Lateralized Liners

The Examiner has rejected claims 102 and 117-124 under 35 U.S.C. § 102(b) as being anticipated by this S&N reference. The Examiner's position is that the S&N reference discloses a prosthetic device comprising an acetabular shell and an acetabular liner, with the liner having a variable angle chamfer. Applicant respectfully traverses this rejection and request reconsideration and withdrawal thereof.

The S&N reference does not show a liner with a rim that has a variable angle chamfer with a plurality of optimized angles that increase the range of motion of a femoral component receive by the liner, as presently claimed. Furthermore, the Examiner has not pointed to any structure on the S&N reference that is being compared to the claimed

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"variable angle chamfer." Applicant can only assume that the Examiner is considering the 20° overhang option as a variable angle chamfer. If that is the case, some versions of the S&N reference's liner do provide an overhang, but there is no suggestion or disclosure to provide a variable angle chamfer with a plurality of optimized angles on that overhang, or anywhere else on the rim of the liner. Accordingly, because this reference does not anticipate or render obvious the claimed invention, Applicant respectfully requests that the Examiner reconsider and withdraw this rejection. (To the extent that Applicant has misunderstood the Examiner's rejection, clarification is respectfully requested.)

C. U.S. Patent 5,507,824 to Lennox

The Examiner has rejected claims 102 and 126-130 under 35 U.S.C. § 102(b) as anticipated by Lennox. The Examiner characterizes Lennox as disclosing a prosthetic device comprising an acetabular shell and an acetabular liner, with the rim of the liner having a variable angle chamfer. Applicant respectfully traverses this rejection and request reconsideration and withdrawal thereof.

The Examiner has not pointed to any structure on the Lennox device that is being compared to Applicant's variable angle chamfer. Applicant has carefully reviewed the Lennox reference and can only assume that the Examiner is considering the forward portion 54 of rim 20 to be a variable angle chamfer. See Lennox Figure 4. The "forward portion 54 of hood 44 overhangs or protrudes angularly beyond the plane P1 of the cavity opening 26 a predetermined initial angular distance to position socket opening 60 at a predetermined initial angle with plane P1 corresponding to first indicia marking 59." See Lennox col. 8, lines 28-33. However, the forward portion cannot be a variable angle chamfer because it defines only a single, constant angle. There is no disclosure in the Lennox patent of a variable angle chamfer. Accordingly, because this reference does not anticipate or render obvious the claimed invention, Applicant respectfully requests that the Examiner reconsider and withdraw this rejection.

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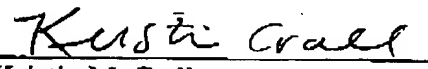
#### IV. 35 USC § 103

The Examiner has also rejected claims 102, 122 and 125 under 35 U.S.C. § 103(a) as being unpatentable over the S&N reference discussed above. The Examiner's position is that the reference discloses a prosthetic device comprising an acetabular shell an acetabular liner medially shifted (Fig. 4), but that it fails to disclose the liner shifted medially specifically up to 8 mm. Because claim 102 is not anticipated or rendered obvious by this S&N reference, any claim depending therefrom should also be considered patentable for at least the above-discussed reasons. Accordingly, this rejection should be withdrawn.

#### CONCLUSION

For at least the above reasons, Applicant respectfully requests allowance of claims 102-110, 116-130, 135, 138-139, 143, and new claim 182 and issuance of a patent containing these claims in due course. If there remain any additional issues to be addressed, the Examiner is urged to contact the undersigned attorney at 404.815.6147.

Respectfully submitted,

  
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### PETITION FOR EXTENSION OF TIME

Pursuant to 37 C.F.R. 1.136(a), Applicant herewith petitions that the period for response to the Office Action dated December 14, 2004, in connection with the above-identified application be extended for one (1) month, to and including April 14, 2004. A credit card authorization for the fee for this petition is attached. The Commissioner is hereby authorized to charge any additional fees or credit any overpayment to Deposit Order Account No. 11-0855.

Respectfully submitted,

  
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